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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/453,586      | 12/03/1999  | YASUHIKO TAKEMURA    | 0756-2061           | 2842             |

31780 7590 07/24/2003

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EXAMINER

NGUYEN, JIMMY H

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 07/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |                    |
|------------------------------|-----------------|--------------------|
| <b>Office Action Summary</b> | Application No. | Applicant(s)       |
|                              | 09/453,586      | TAKEMURA, YASUHIKO |
| Examiner                     | Art Unit        |                    |
| Jimmy H. Nguyen              | 2673            |                    |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 08 July 2003.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-68 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-68 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. 08/419,956.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 26.

4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Request for Continued Examination***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/08/2003 has been entered. Claims 1-68 are currently pending in the application. An action on the RCE follows:

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 07/08/2003 and entered as paper No. 26 is considered by the examiner except that the references, USPN: 4,528,480 already cited in IDS filed on 05/13/2002 and USPN: 5,051,570 cited in IDS filed on 09/10/2001, are crossed out because they were considered.

### ***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-68 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 6,023,308, hereinafter PAT308, in view of Hamada et al. (USPN: 5,194,974, cited in IDS entered as paper No. 2), hereinafter Hamada.

As per claims above, although the conflicting claims are not identical, they are not patentably distinct from each other because PAT308 and the application are claiming common subject matter, as follows:

| <u>Pending Application</u>               | <u>Patent</u>                            |
|--|--|
| A LCD semiconductor device               | An active matrix LCD device              |
| A substrate                              | A substrate                              |
| First and second top-gate or bottom-gate | First and second top-gate or bottom-gate |
| TFTs                                     | TFTs                                     |
| First and second signal lines            | First and second signal lines            |
| A voltage supply line                    | A voltage supply line                    |
| A pixel electrode                        | A pixel electrode                        |
| A driving circuit                        | A driving circuit                        |

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent except for an operation method comprising a step of applying a voltage from the voltage supply line to the pixel electrode for a period during one frame wherein the period is determined in accordance with a desired tone of a display, as recited in independent claims 1-24, and a step of applying one or more pulses from the voltage supply line to the pixel electrode during one frame wherein a number of pulses applied to the pixel electrode during one

frame is determined in accordance with a desired tone of a display, as recited in independent claims 25-48. However, Hamada discloses a related apparatus and an associate method, wherein as noting in fig. 4 and at col. 7, lines 37-46 and col. 8, lines 21-45, the common line (F) (corresponding to the claimed voltage supply line) is supplied by an a.c. voltage (Vc') having a rectangular waveform of  $\pm$  7.5V, and a static voltage is supplied to pixel electrode for a desired period during one frame (col. 4, lines 22-45, and col. 6, line 66 through col. 7, line 4).

Accordingly, one skilled in the art would recognize that Hamada discloses the step of applying a voltage from the voltage supply line to the pixel electrode for a period during one frame wherein the period is determined in accordance with a desired tone of a display, and the step of applying one or more pulses from the voltage supply line to the pixel electrode during one frame wherein a number of pulses applied to the pixel electrode during one frame is determined in accordance with a desired tone of a display. It would have been obvious to a person of ordinary skill in the art to utilize Hamada's teachings, i.e., two steps discussed above in the methods of the PAT308 because this would maintain a display of clear and non-flickering constant halftone images as any other tone images on the screen (col. 4, lines 35-37 and lines 57-62). Therefore, it would have been obvious to one skilled in the art to combine Hamada with PAT308 to obtain the claimed invention as specified in claims above.

*Response to Arguments*

5. Applicants' argument filed "Hamada appears to fail to teach the limitation, during one frame", page 2, second paragraph, of the Request for Consideration filed on 03/11/2003, has been fully considered but it is not persuasive because as discussed above, Hamada clearly

discloses the claimed limitation, "during one frame", at col. 4, lines 22-45, and col. 6, line 66 through col. 7, line 4.

For the above reason, it is believed that the rejections should be sustained.

***Conclusion***

6. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JHN  
July 22, 2003



BIPIN SHALWALA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600